

umShuttle

A PUBLICATION OF THE UNIVERSITY OF MASSACHUSETTS LOWELL

EPA Funds Grant to Improve Children's Environmental Health

The University recently was awarded \$150,000 from the U.S. Environmental Protection Agency (EPA) to educate New England health professionals about environmental health hazards faced by children, and how to address them. UMass Lowell was one of only seven organizations nationwide to receive such a grant from the EPA.

Lead researcher Prof. Stephanie Chalupka of the nursing department and Project Manager David Turcotte of the Center for Family, Work and Community will conduct seven workshops—one in each New England state, with two in Massachusetts—targeting health professionals who work with children, especially nurses. They expect to reach about 200 such practitioners. Asst. Prof. Joel Tickner of the Community Health and Sustainability Department also will head the research effort, and Julie Villareal of the Center for Family, Work and Community will serve as the training program manager.



▲ Lead researchers Asst. Prof. Joel Tickner of Community Health and Sustainability and Prof. Stephanie Chalupka of Nursing, front row, will work with the Center for Family Work and Community's Julie Villareal, training program manager, and David Turcotte, program manager, to implement a \$150,000 EPA grant promoting children's environmental health.

"What are the environmental health hazards that children might be exposed to? And how can practitioners address them?" says Turcotte, in defining the focus of the workshops. "We hope to have a major impact among health professionals, especially

nurses working with low-income and minority children." Studies have shown that those groups, along with immigrant and refugee children, are exposed to disproportionate levels of environmental health hazards and, particularly in smaller cities and rural areas, have less access to health care services than do others.

Therefore, the project concentrates on those groups and locales.

"Nurses are often the initial—and sometimes the only—point of contact for people seeking health care in both rural and urban settings," says Chalupka. "They visit patients in their homes and work with patients in schools and their communities, thus gaining

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UML Joins in Forming Center to Aid State's Medical Device Companies

Assistance Will Include Product Design, Trials and Manufacturing

In keeping with its mission to support regional economic development, UMass Lowell has taken part in the formation of a center to help the state's medical device companies grow, compete and remain in Massachusetts.

The Massachusetts Medical Devices Development Center (M²D²) combines the engineering expertise at UML, the clinical and medical expertise at UMass Worcester and the marketing expertise of the University's Donahue Institute to help both established and start-up companies with product design, prototyping, manufacturing, clinical trials and FDA compliance issues.

Prof. Steve McCarthy of Plastics Engineering, a primary investigator of M²D², says,



▲ Prof. Stephen McCarthy

"Medical device companies have told the Donahue Institute that they want access and interaction with University researchers. Our response is M²D²."

While industry members have been able to approach the UMass system's faculty and

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Haunted House Animatronics Inspires Donation

\$80k Will Support DesignLab Invention Kits

Mark Gelfand keeps pictures on his cellphone from his visit to DesignLab.

"They're to show people what I want to do for kids, so they can design, create and build," he says. "Creativity is not just about art and culture, it's about science and problem solving, about using instruments to learn beyond their own senses. I want kids to be more grounded, more exposed to the complicated world around them."

Gelfand liked what he saw at DesignLab, an after-school program to introduce middle school students to science and engineering through hands-on design projects. The students were creating

their own animatronics inventions for a classroom haunted house—scary, wonderful things like a bleeding skull and a skeleton rising from a coffin. Two days later, Gelfand sent a personal check for \$80,000 to Doug Prime, director of K-12 educational outreach for the College of Engineering.

Prime, who also runs the popular summer Design Camp program, always has a new idea, a new project ready to roll out. The donation will support the development and pilot testing of 12 DesignLab Invention Kits—everything a teacher would need for design projects in a classroom.

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Extreme Makeover Helps Rowdy Reach Out to Fans

His face was showing his age. His attitude was not sitting well with fans. And worst of all, he was scaring little kids. An intervention was in order.

So Rowdy the River Hawk, the 11-year-old mascot for the UML athletic teams, received an extreme makeover, with experts helping him polish his appearance, improve his attitude, and create a whole new bird—one that could rally River Hawk fans without striking fear into the hearts of children. This remarkable transformation was filmed by CN8, the Comcast Network, and will air on Dec. 22 at 10 p.m. on the show "Sports Pulse"

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IN OTHER NEWS

The Ombuds Solve Problems— Alan Lincoln says that after five years as problem solver, the biggest question is always, "What's an ombuds?"

Good Morning, Bruce Jackson—ABC's Good morning America interviews Asst. Prof. Bruce Jackson about his genealogy research on African-Americans.

Frightening Laboratory Work—Wang School students create scary Halloween creatures in Doug Prime's Design Laboratory.

To see these and other stories, go to UMass Lowell's new online eNews Web site at www.uml.edu/enews

Tickner Receives President's Public Service Award

Recognition Given for Work on Precautionary Principle

The University of Massachusetts has awarded Asst. Prof. Joel Tickner of the Community Health and Sustainability Department its 2005 President's Award for Public Service. President Jack M. Wilson and Board of Trustees Chairman James J. Karam presented the award at a Boston ceremony in early December.

In his acceptance remarks, Tickner said, "The work for which I am being honored today is the product of partnership. It is not my work but rather the work of a spectacular group of people at UMass Lowell and throughout the Commonwealth." He thanked his mentors, including UMass Lowell faculty and staff members Ken Geiser, David Kriebel, Cathy Crumbley and Beverly Volicer, and he thanked his family.

In a press release, the President's Office called Tickner "an expert on the 'Precautionary Principle,' a principle that calls for a proactive approach in preventing harm to human or environmental health," and noted that "he has helped to create The Alliance for a Healthy Tomorrow."



▲ Asst. Prof. Joel Tickner, center, received the 2005 President's Award for Public Service. At a ceremony in Boston, he was joined by colleagues and mentors, from left, Associate Provost Kristin Esterberg, Co-Director Ken Geiser and Program Director Cathy Crumbley of the Lowell Center for Sustainable Production, and Provost John Wooding.

Public Service Awards were given to six other faculty members elsewhere in the system, including one posthumous award. Wilson said that the seven system-wide awardees are "talented professionals who have transmitted their varied expertise into projects that benefit their students, the citizens of the Commonwealth, the nation and the world."

"The public service work that they do is what distinguishes the University of Massachusetts from many of the other institutions of higher education in this state," said Karam. "Whenever there is a pressing social need, the University of Massachusetts is ready to answer the call. Their achievements have brought tremendous approbation to the entire University system."

Departmental Website Implementation Update

All campus websites are being redesigned using a new content management system (CMS) called Serena Collage, which separates content from design, and enables departments to maintain their websites without using programs such as Dreamweaver and MS FrontPage. The new software will make it possible for the entire site to be updated more efficiently.

More than a dozen sites have been launched in the CMS and well over 50 people have been trained across campus to maintain their own sites.

The newly launched sites are as follows:

- School of Health and Environment
- Department of Clinical Laboratory and Nutritional Sciences
- Department of Community Health and Sustainability
- Department of Nursing
- Department of Physical Therapy
- Department of Work Environment
- General Education
- Office of Multicultural Affairs
- Office of Residence Life
- Office of Disability Services
- Department of Chemical Engineering
- Office of Student Activities
- Transformation
- Accounts Receivable
- Department of Mechanical Engineering

For more information on the CMS Implementation Project, visit intranet.uml.edu/it/weboffice.

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EPA Funds Grant to Improve Children's Environmental Health

firsthand knowledge of the potential environmental hazards."

Funding is provided by the EPA's Office of Children's Health Protection, whose mission is to promote environmental health protection for children and older adults in the United States and around the world.

"We now know that the natural environment is integrally connected with our physical health—especially the health of our most vulnerable residents," says Robert W. Varney, regional administrator of EPA's New

England office. "By giving health professionals information on this connection, we can help protect children from possible hazards in their environment." In a press release, he pointed out that Massachusetts was the only state to receive more than one of the seven grants. The other was awarded to Greater Boston Physicians for Social Responsibility.

For more details on each grant, go to: <http://yosemite.epa.gov/ochp/ochpweb.nsf/content/building2005.htm>

—RLC

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Haunted House Animatronics Inspires Donation

Prime is working with Asst. Prof. Fred Martin of computer science, inventor of the Cricket processor, and several of the teachers from Design Camp to create the kits.

"My goal is to make it easy and cost-effective for teachers and schools to run these programs on a broad scale," says Prime. Gathering all the different materials is difficult for teachers; the kits will also include a complete project guide. "We're planning to provide tech support online and a place for kids to post their ideas: Fred and I have this idea to develop an interactive design community online."

Prime's goals—"to build on the work we've done and make a greater impact across the state"—are in synchrony with Gelfand's.

For years, Gelfand has volunteered in schools and taught community education courses for kids. He says, "At one time I thought I'd have to do this all by myself, but I've been lucky in business, and the people I've met have been able to touch thousands of kids." Gelfand, a physi-

cist by education, is co-founder of Intex Solutions, Inc., a web-based service for securities and portfolio analysis.

"What people don't understand about donations, is how much people get back, so much more than they put in," he says. "I've had so many wonderful experiences through being able to contribute. People who have the wherewithal should find a project that they're interested in and support it."

—SS



▲ Doug Prime, shown here with young inventors in the Haunted House animatronics project, will use donated funds to create DesignLab Invention Kits for use in classrooms.

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Extreme Makeover Helps Rowdy Reach Out to Fans

Peter Casey, associate athletic director, said Rowdy's problems became apparent soon after his creation in 1994, when the UML sports nickname changed from the Chiefs to the River Hawks.

"When he was first created, he was envisioned as a superhero-esque type mascot, with the bulked-up physique and ferocious glare. What we found was that a lot of our youngest fans were frightened by Rowdy, so we wanted to make him more kid friendly," says Casey.

They tapped local experts, such as the hair stylists at the Big League Barber Shop, anger management consultants, even a plastic surgeon—a beakologist—who recommended a softer, more friendly schnoz. The athletic department also received professional help from Scollon Productions, a mascot image firm that specializes in tough cases like Rowdy's.

The camera crew from CN8 followed Rowdy everywhere, documenting his before and after look, interviewing coaches, players and fans and watching him work out at the Campus Recreation Center. What



▲ Before his extreme makeover, Rowdy the River Hawk's face reflected his age and his poor attitude.



▲ Thanks to a consultation with a beakologist, Rowdy's profile reflects the beautiful bird inside.

they discovered was a mascot with an image problem. Coaches and fans were checking with the athletic department to see if Rowdy would be present at certain games so they could warn their children. Head Basketball Coach Ken Barer's daughter would retreat to his office in fear. Even the students were making fun of him, cruelly taunting him for his look while ignoring the beautiful mascot inside.

The newly made over Rowdy made his official "reveal" at the River Hawks hockey game against Boston University on Oct. 28. Fans cheered, players applauded and, best of all, children approved. He is still buff, but his muscles are more toned than bulky. His beak gently slopes to a non-threatening point. His smile is more genuine and less ferocious. His outside look finally matches the spirit inside.

Besides airing on "Sports Pulse," the 15-minute makeover documentary will be aired on Jan. 28 during the UML hockey game against Boston College, which will be televised on CN8. Casey also plans to convert the video to a web-friendly format so fans can view it from the goriverhawks.com website.

—Ko'R



▲ Still buff, Rowdy the River Hawk doesn't scare his youngest fans now that his features reflect the spirited bird inside.

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UML Joins in Forming Center to Aid State's Medical Device Companies

researchers to seek assistance in the past, there has never any mechanism in place to facilitate this effort, McCarthy says. The new Center solves that problem.

There are more than 220 medical device companies in Massachusetts, with 20,000 employees and a total payroll of more than \$1.6 billion. And, it's estimated that every 100 jobs in the industry is associated with another 79 jobs in the state.

The Center was launched with \$135,000 in seed funding, awarded by UMass President Jack Wilson from the University's Science and Technology Fund. This money will be used by the Center to compete for major funding through the National Institutes of Health, the National Science Foundation and cost-sharing with the Massachusetts economic stimulus legislation.

The strategy will be to expand the collaboration between the Lowell and Worcester campuses and to use the Donahue Institute to develop strategic alliances with Massachusetts industry and hospitals.

McCarthy says, "The Massachusetts medical device industry is a major competitor at the national level. It's worth adopting and developing public policies to help keep our state in the forefront of this industry."

UMass Lowell's Plastics Engineering Department has an impressive record in the area of plastics engineering research—particularly in medical device research and development—and offers a Graduate Certificate in Medical Plastics and Manufacturing. Hundreds of its alumni work in the medical device field and many have established extremely successful companies.

The Worcester campus provides expertise in medical procedures, clinical trials and FDA compliance. The Donahue Institute has links with many medical device companies and will help to identify and link the needs of these companies with the capabilities of the University.

—JMCD

Sports Illustrated Pays Homage to UML's Joanna DaLuze

She Scored Winning Goal in Field Hockey National Championship

Joanna DaLuze, the senior from Harwich who scored UML's game-winning goal in the national NCAA Division II field hockey championship game, was featured in the Faces in the Crowd section of the Dec. 2 issue of Sports Illustrated.

The goal by DaLuze, a three-year starting midfielder, came in double overtime and gave the River Hawks a 2-1 victory over Bloomsburg



▲ Joanna DaLuze

in the Nov. 13 title game played at Shippensburg, Penn.

In addition to the Sports Illustrated laurel, she earlier was named the Northeast-10 Conference Co-Player of the Year, first team All America by the National Field Hockey Coaches Association and Eastern College Athletic Conference Division II Player of the Year.

Other UMass Lowell athletes who have appeared in the Faces in the Crowd section include basketball star Elad Inbar in 2004 and women's soccer standout Jackie MacLean in 1997.

Dissertation Defense Marks a Milestone

Chemistry Department Awards 300th PhD

The Chemistry Department announced the awarding of its 300th doctoral degree recently as Philip Levesque defended his thesis. Leveque is a senior research associate at ID Biomedical Corporation, working on analytical chemistry method development. Levesque's thesis is titled, "Investigation of Recombinant

Streptococcus Pneumoniae Vaccine Antigen Adsorbed onto an Aluminum Adjuvant." The examination committee consisted of Profs. Eugene Barry, chair, Melisenda McDonald and David Ryan, all of chemistry; and Prof. Carl Lawton, chemical engineering.

The first doctorate in chemistry was awarded in the mid-1960s and the 100th in 1990—about 25 years later. The next 200 were awarded in the 15 years from 1990 through 2005.



▲ Prof. Eugene Barry, left, and Dr. Philip Levesque.

TURI Awards Three Community Grants

Focus Is on Safer Cleaning, Lawn Care and Pest Control

The grant amounts may be small but don't underestimate the power of people and organizations wanting to make a difference. Now in its 11th year, the Toxics Use Reduction Networking Grant Program has helped neighborhood groups, municipalities and other non-profit organizations, educate people about how to live healthier, safer lives.

For the 2005-06 grant program, the Massachusetts Toxics Use Reduction Institute (TURI) awarded grants ranging from \$12,000 to \$14,000 each to the Town of Westford Water Department, the Regional Environmental Council in Worcester, and the Center for Healthy Homes and Neighborhoods at Boston University's School of Public Health.

"We're seeing an increased desire from community groups to focus in areas where they can offer safer alternatives and build on what's worked in the past, which is at the heart of TURI's community grant program," says Eileen Gunn, TURI Community Program Manager. "I trust that these three organizations will expand public

knowledge within their own targeted areas as well as serve as models for future projects."

The Town of Westford Water Department will raise public awareness of the effects of pesticides on human health and water resources and promote safer alternatives for lawn care. The Regional Environmental Council in Worcester will train self-employed workers and janitors about the health hazards of toxics found in common cleaning products and introduce safer alternatives. The third grant recipient, the Center for Healthy Homes and Neighborhoods at Boston University's School of Public Health, will train housing developments in Boston, Cambridge and Waltham about how to reduce the use of pesticides through more effective and environmentally sound pest management strategies. Through partnering with other organizations, these three award recipients will reach a total of 14 Massachusetts communities.

For more information about the grant program, visit www.community.turi.org or contact Eileen Gunn at 978-934-4343, Eileen@turi.org.

New Course Challenges Students, Professor, Guest Speakers

Gray Develops Intro to Environmental Studies

Teaching a truly interdisciplinary course is challenging. Students come from various backgrounds and majors; materials are not readily available and one instructor cannot realistically present all the lectures. So when Vanessa Gray, assistant professor of political science, planned the new Intro to Environmental Studies course, she turned to experts across campus to be guest lecturers.

Fourteen different faculty and staff, ranging from science and engineering to philosophy and economics, were guest speakers and led discussions. Integrating sometimes contradictory statements from the various experts could be a challenge, Gray says. "Mostly, though, I am thrilled with how much care and creativity the speakers have put into

their presentations. I learn something new every session and I'm terribly grateful to my colleagues for their effort."

The multi-disciplinary survey course is required of students in the nascent environmental studies minor. The syllabus introduces students to contemporary environmental issues, provides information about environmental courses and programs on campus, and explores job possibilities for persons interested in sustainability.

"The central theme of the course," says Gray, "is that environmental issues have various dimensions—biophysical, cultural, economic, ethical, historical, political, technical, and so on—and that awareness of these dimensions is necessary for sustainability efforts to succeed." Gray collaborated with colleagues in designing the course: Asst. Prof. Chad Montrie, history; Prof. Arnold O'Brien, chair of the Environmental, Earth and Atmospheric Sciences Department; and Research Asst. Prof. Joel Tickner, work environment.

Interspersed with guest speakers are assignments based on readings and films, with thought-provoking questions to guide students' reflections. The students' "written responses are the most gratifying part of the course for me. I live for those instances when students engage new ideas in profound ways, and that seems to be happening quite a bit."



▲ Asst. Prof. Vanessa Gray with students in Intro to Environmental Studies.

Underground Movement Began On Campus in Late 1940s

Initiative Has Since Grown in Size and Popularity

It was in the late 1940s, not long after World War II, that the first underground movement began at what was then the Lowell Textile Institute.

It expanded slightly in 1950, and again four years after that, and once again in 1958.

It's still in existence today, more than half a century after its inception, and it still has many adherents—especially on cold, snowy or rainy days.

This underground is, of course, the tunnel system that connects Smith, Eames, Alumni, Cumnock, Ball and Southwick halls and the Lydon Library. It's the conduit that enables students, faculty and staff to walk to nearly every building on UML North without braving the harsh New England elements.

In fact, though, the ease and comfort of the University community was not the primary motive for creating these tunnels in the first place.

"The purpose for the tunnels was just to take utility services, principally steam, from the north central heating plant to the residence halls for heat and hot water," says Physical Plant Director Dave Kiser. "Secondarily, they served as pedestrian passages



▲ The University's tunnel system, constructed originally to carry steam and other utilities from building to building, is a popular pedestrian way for students, staff and faculty.

and kept people from having to cross the street."

Was pedestrian traffic sanctioned or merely tolerated when the first tunnel—connecting Southwick, Smith and Eames—was constructed in the 1948-49 time period?

One retired faculty member remembers that students were encouraged to use the tunnel to cross the street, then called Textile Avenue.

For one thing, he says, "Traffic along the avenue was pretty hefty and the kids tended to cross the road anywhere. Using the tunnel was a matter of safety." He remembers student coming to class "comfortably dressed," including bedroom slippers.

Kiser says, "The tunnels are a mixed blessing. They're not very pretty things but when the weather

is foul, they do help keep sand, salt and snow out of the buildings that otherwise would be tracked in on people's shoes."

When that first L-shaped section, from Southwick to Smith to Eames, was built, the two residence halls were the only University buildings on that side of the street. When Alumni Hall went up in 1950, it was connected to the Smith-Eames section.

Four years after that, Cumnock was erected, and a utility tunnel connected it to Kitson Hall. The third section of tunnel was built in 1958 to extend heat and utilities to the newly constructed Ball Hall.

"There's a third section of tunnel that no one uses because it's not open to pedestrians," Kiser says. That one,

60 feet long, connects the heating plant to Falmouth Hall.

Years ago, he says, the power plant also produced DC electricity to the quad buildings to power the mill equipment when it was Lowell Textile School. A lot of that old textile school equipment ran on direct current motors.

The Eames-Smith and Cumnock-Kitson tunnels are undergoing a "face lift" this year. The project, according to Kiser, will include structural work and will address a water infiltration problem between Lydon and Eames. It also will entail new lighting and the replacement of doors.

The section of tunnel that runs under University Avenue underwent a similar upgrade not long ago.



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